

## AMENDMENTS TO THE SPECIFICATION:

Paragraph [0010], page 3 has been changed as follows:

In order to achieve the abovementioned purpose, the translation-identifying system relating to the invention according to ~~Claim 1~~ a first embodiment comprises a storage means for storing a plurality of natural sentences composed of a plurality of words in the source language by correlating the natural sentences with the translations in the target language, a retrieval means for retrieving natural sentences containing phrases to be translated in ~~the original sentence of the~~ sentences in a source language from a plurality of natural sentences in ~~the said~~ source language stored in ~~the aforementioned~~ said storage means, and ~~a corresponding translation identifying means for determining a degree of coincidence between the natural sentence extracted by the retrieval according to the aforementioned retrieval means and the aforementioned original sentence, and identifying the translations composed of, at least, the aforementioned phrases to be translated in the corresponding translation of the natural sentence selected on the basis of a determined degree of coincidence as the translation of, at least, the aforementioned phrases to be translated in the aforementioned original sentence~~ search means for searching natural sentences extracted by retrieval of said retrieval means for said phrase to be translated and frequently appearing translations appearing in the same sentence of said source language, and a translation identifying means for searching translated sentences of natural sentences containing each of said phrase to be translated and specific frequently appearing phrases for frequently appearing translations of phrase to be translated by referring to said specific frequently appearing phrases found by said search means and existing in said original sentences and referring to translated sentences of natural sentences containing each of said phrase to be translated among natural sentences extracted by retrieval of said retrieval means and for identifying found frequently appearing translations as translations of said phrases to be translated in said original sentences.

The paragraph beginning on page 4, line 26 has been changed as follows:

In addition, the original sentence containing the phrase to be translated may ~~also be~~ be also specified by a user (translator, etc.) or may be specified automatically (for example, a sentence or a clause containing the phrase to be translated is automatically identified as the original sentence).

Please delete paragraphs [0013] - [0044], beginning on page 4, and replace with new paragraphs [0013] - [0044] as follows:

[0013] In the invention according to ~~Claim 1~~ the first embodiment, a search means searches the natural sentences extracted by the retrieval of the retrieval means for the phrases to be translated and the frequently appearing phrases that frequently appear in the same sentences of the source language, a translation identifying means identifies translations of at least said phrase to be translated in translated sentences of natural sentences containing each of alternative phrases identified by said identifying means and said phrase to be translated among natural sentences extracted by retrieval of said retrieval means, as translations of at least said phrase to be translated in said original sentences.

[0014] When a phrase to be translated and specific frequently appearing phrases that frequently appear (called correlation) in the same sentence in the source language exist in the original sentence, there is a high probability that the translation of the phrase to be translated coincides with the translation of the phrase to be translated in the corresponding translation of a natural sentence containing each of the phrases to be translated and specific frequently appearing phrases.

However, although there is a high probability that the phrases to be translated are identical to a suitable translation of the phrases to be translated in the corresponding

translation of a natural sentence containing each of the specific frequently appearing phrases, there also is a possibility that natural sentences having unsuitable translations of phrases to be translated are mixed in the abovementioned natural sentences stored in the storage means.

Based on this, in the invention according to ~~Claim 1~~ the first embodiment, since frequently appearing phrases having a high correlation with phrases to be translated are searched for, frequently appearing translations for phrases to be translated and phrases to be translated in the translation of a natural sentence containing each of the specific frequently appearing phrases are found by referring to the specific frequently appearing phrases existing in the original sentence among the recognized frequently appearing phrases and the translation of a natural sentence containing each of the phrases to be translated. Therefore, suitable translations of phrases to be translated in the original sentence (corresponding translation where there is a high probability that natural translations are obtained as sentences in the target language from the original sentence) can be obtained based on the frequently appearing phrases even if it is difficult to identify (select) a suitable natural sentence based only on the degree of coincidence.

[0015] It is difficult to identify the suitable translation taking the contexts before and after a word into consideration because there are many options depending on the situation. In the invention according to ~~Claim 1~~ the first embodiment, the corresponding translation of a phrase to be translated is identified by focusing on the phrase that frequently appears in the same text at the same time and by referring to the corresponding translation sentence of a natural sentence where this phrase and the phrase to be translated appear at the same time. Therefore, it is not necessary to take the contexts before and after the original sentence into consideration. As a result, a suitable translation of a multivocal word can be obtained roughly considering the contexts before and after the original sentence.

It is possible to search for the abovementioned frequently appearing phrases by registering phrases that frequently appear in the same text of the source language in a table and referring to the table. In the invention according to ~~Claim-1~~ the first embodiment, since the frequently appearing phrases are found based on the natural sentences extracted by the retrieval of the retrieval means, there are two advantages wherein time and labor for preparing the abovementioned table can be saved, and the storage capacity required for storing the table can also be saved.

[0016] The translation identifying system relating to the invention according to ~~Claim-2~~ a second embodiment comprises a storage means for storing a plurality of natural sentences, of original sentences composed of a plurality of words, correlated with translated sentences in a target language, a retrieval means for retrieving natural sentences containing phrase to be translated in original sentences in a source language from a plurality of natural sentences in said source language stored in said storage means, an identifying means for identifying alternative phrases existing in said original sentences and replaceable with targeted phrases not contained in natural sentences extracted by retrieval of said retrieval means, an identifying means for identifying alternative phrases existing in said original sentences and replaceable with targeted phrases not contained in natural sentences extracted by retrieval of said retrieval means, a translation identifying means for identifying translations of at least said phrase to be translated in translated sentences of natural sentences containing each of alternative phrases identified by said identifying means and said phrase to be translated among natural sentences extracted by retrieval of said retrieval means, as translations of at least said phrase to be translated in said original sentences.

[0017] In common with the invention as ~~defined in claim-1~~ the first embodiment, multiple natural sentences in the source language, respectively composed of multiple words, are stored in memory in the invention as ~~defined embodied in claim-2~~ the second

embodiment, corresponding to the parallel version in a target language out of which natural sentences containing the targeted phrases in the original text in a source language are retrieved by the search tool.

A natural sentence where a specific phrase in the original sentence is replaced with another phrase is sometimes extracted by the retrieval of the retrieval means. In this case, if meanings of the original sentence and the natural sentence are similar, the specific phrase is considered to have a replaceable relation to the other phrase.

Even if a plurality of natural sentences is extracted by the retrieval of the retrieval means, when a natural sentence where a specific phrase for the original sentence is replaced with the other phrase (alternative phrase) having a replaceable relation to the specific phrase exist in these natural sentences, it is preferable to select this natural sentence because there is a high probability that this natural sentence and the original sentence have the same meaning.

[0018] Based on this, in the invention according to ~~Claim 2~~ the second embodiment, an alternative phrase that is replaceable with a targeted phrase extracted by the retrieval of the retrieval means and not contained in the natural sentence existing in the original sentence is identified by the identifying means, and the translation identifying means identifies the translation of the alternative phrase identified by the identifying means and of at least the phrase to be translated in the corresponding translation sentence of a natural sentence containing each of the phrases to be translated among the natural sentences extracted by the retrieval of the retrieval means as the translation of at least the phrase to be translated in the original sentence.

Thus, based on an alternative phrase, suitable translations of phrases to be translated in original sentences having a high probability of obtaining natural translated sentences as sentences in a target language from the original sentences in a source language can be obtained.

[0019] Identification of an alternative phrase by the identifying means relating to the invention according to ~~Claim 2~~ the second embodiment may be performed by registering phrases having replaceable relations with each other in a table and referring to this table. For example the identification may be performed by retrieving a natural sentence containing a targeted phrase from a plurality of natural sentences stored in the storage means, retrieving a natural sentence having a sentence structure identical to the natural sentence extracted by this retrieval from the natural sentences stored in the storage means, and identifying the phrase replaced with the targeted phrase in the natural sentence extracted by this retrieval as the alternative phrase as ~~described~~ embodied in Claim 3 the third embodiment.

Also, in this case, time and labor for preparing the abovementioned table can be saved, and the storage capacity required for storing the table can be also saved.

[0020] Since an immeasurable amount of background knowledge associated with phrases themselves having various properties depending on these phrases exist, it is difficult to extract all of them to classify into categories.

In the inventions according to ~~Claims 2 and 3~~ the second and third embodiments, since a phrase replaceable in the same sentence structure is identified as a phrase in the same category, it is possible to obtain suitable translations roughly based on the background knowledge associated with phrases themselves without obtaining background knowledge of entire phrases to classify them into categories.

[0021] In the invention according to ~~Claim 1 or 2~~ the first or second embodiment, as ~~described~~ embodied in, for example, ~~Claim 4~~ a fourth embodiment, it is preferable that a translation identifying means evaluates a degree of coincidence between natural sentences extracted by retrieval of said retrieval means and said original sentence and identifies translations of at least said phrase to be translated in translated sentences of natural sentences

selected on the basis of said evaluated degree of coincidence, as translations of at least said phrase to be translated in said original sentence.

Thus a natural sentence similar to the original sentence among natural sentences extracted by the retrieval of the retrieval means (for example, a natural sentence used with the same meaning as the multivocal word existing in the original sentence) is selected with high probability as a natural sentence with a high degree of coincidence, a natural translation corresponding to the selected natural sentence is obtained, and the translation of, at least, the phrase to be translated in the translations are identified as the translation of the phrase to be translated in the original sentence (it is a matter of course that the translation of a phrase other than the phrase to be translated in the corresponding translation can be identified as the translation of the phrase in the original sentence depending on the degree of coincidence with the original sentence).

[0022] Thus the invention according to ~~Claim 4~~ the fourth embodiment, considering the great technical difficulty of identifying punctuation of chunks in the original sentence, stores a plurality of natural sentences in the source language that correspond to the translations in the target language, selects a natural sentence having a high degree of coincidence with the original sentence in the source language from the stored natural sentences, and identifies the translation in the natural translations corresponding to the selected natural sentences as the translation of, at least, the phrase to be translated in the original sentence. Therefore the invention enables the obtaining of natural translations equal to the translation corresponding to the original sentence performed generally by chunk as a result that it is not necessary to identify the punctuation of the chunk in the original sentence and enables the obtaining of suitable translations of the phrases to be translated in the original sentence (the translation having a high probability of obtaining from the original sentence a natural translation as a sentence in the target language).

Moreover, since the invention according to ~~Claim 4~~ the fourth embodiment determines a degree of coincidence between a natural sentence extracted by the retrieval of the retrieval means and the original sentence, and can obtain the suitable translation by selecting a natural sentence based on the determined degree of coincidence, it is not necessary to perform complicated processing, such as identification of a part of speech and an analysis of sentence structure as in the conventional machine translation system, and can simplify the processing.

[0023] The parallel translation identifying system related to the invention as defined in ~~claim 5~~ a fifth embodiment consists of the following tools: the memorizing means storing multiple natural sentences composed of multiple words in a source language coordinating with the parallel sentences in a target language; the retrieval tool searching natural sentences containing the object phrases to be rendered in the original text in the source language out of the multiple natural sentences in the source language retained in the above memory; and the parallel translation identifying system processing the minimal translation target phrase in the natural parallel version selected based on the total value of the first evaluated value computed as the minimal object phrase in the original text by respectively adding the first evaluated value corresponding to the small distance between the phrase to be rendered and the respective words in the original text, identifying the words matching the original from among the respective words in the natural sentence in question about the natural one extracted through the retrieval tool, and by computing by the natural sentence for which the total value of the said first evaluated value added to the corresponding words were recognized.

[0024] The invention as defined embodied in claim 5 ~~the fifth embodiment~~ is equipped with the same memory and search means as ~~defined embodied in claims 1 and 2~~ the first and second embodiments with the first evaluated value individually assigned corresponding to the small distance between the respective words and the phrase to be



rendered in the original text, recognizing the matching words with the original from among the respective words in the relevant natural sentences extracted by the retrieval unit, computing by the natural sentence the total value of the first value given to the matching words recognized, based on which identifying the parallel version of the minimal object phrases in the selected natural sentence as the corresponding translation of the minimal target phrases in the original text. Therefore, on the basis of the total value of the first evaluated value, being capable of selecting the natural sentence containing more words located in the proximity of the target phrases to be rendered in the original text, i.e., a natural sentence with the high possibility of containing a collocation of phrases composed of the target phrases and words in the vicinity to be rendered in the original text (a natural sentence assumed with higher degree of similarity in the alignment sequence of the words compared with the original) can be chosen, thus, acquiring an appropriate parallel translation of the phrases in the original to be rendered with the high possibility of producing a natural rendition as a sentence in the target language from the original text in the source language (parallel rendition with higher possibility of natural translation from the original text into the target language).

[0025] In addition, in the invention as ~~defined~~ embodied in claim 5 the fifth embodiment, it will be preferable to configure the parallel translation identifying means in such a way as ~~defined~~ embodied in claim 6 a sixth embodiment, if there are multiple sentences from the computed result of the first evaluated value, about the respective natural sentences of such multiplicity, that the parallel translation of the minimal phrases to be rendered in the parallel translation of the natural sentence selected based on the computed total value of the second evaluated value can be identified as the parallel translation for the minimal phrases in the original text, respectively assigning the second evaluated value according to the small distance in the above natural sentence from the object phrases for

rendering in the natural sentence for the matching words in the said sentence, computing the total value of the second evaluated value given to the corresponding words aforementioned by the natural sentence.

Thus, if there are multiple sentences from the computed result of the first evaluated value, on the basis of the total value of the second evaluated value, the natural sentence containing a larger number of the words coinciding with the original sentence and containing the mismatched words existing between the coinciding words as small as possible, i.e., a natural sentence with the high possibility of containing a collocation of phrases composed of the target phrases and words in the vicinity to be rendered in the original text (a natural sentence assumed with higher degree of similarity in the alignment sequence of the words compared with the original) can be chosen, thus, acquiring an appropriate parallel translation of the phrases in the original to be rendered with the high possibility of producing a natural rendition as a sentence in the target language from the original text in the source language (parallel rendition with higher possibility of natural translation from the original text into the target language).

[0026] The parallel translation identifying system related to the invention as ~~defined~~ embodied in claim 7 the seventh embodiment consists of the following means and unit: the memorizing means storing multiple sentences in the source language composed of multiple words coordinating the rendered parallel sentences of the target language; the search unit retrieving the natural sentence containing the target phrases to be rendered in the original text of the source language from the multiple natural sentences in the source language stored in the above memory; and the parallel translation identifying system recognizing the rendition of the said minimal parallel phrases in the parallel natural sentences selected based on the total value of the third evaluated value computed as the parallel translation of the minimal parallel phrases in the original text in question, searching, to the natural sentence extracted by

the search unit, from among the anterior word groups aligned toward the front side from the object phrases to be rendered in the original text, whether the specific anterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the front of the object phrases to be rendered in the natural sentence or the anterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific anterior words upon detection and the object phrases to be rendered or the anterior words extracted in the preceding search until the non-retrieved anterior words have ceased to exist in the aforementioned original text, and concomitantly searching, to the natural sentence extracted by the search unit, from among the posterior word groups aligned toward the back from the object phrases to be rendered in the original text, whether the specific posterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the back of the object phrases to be rendered in the natural sentence or the posterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific posterior words upon detection and the object phrases to be rendered or the posterior words extracted in the preceding search until the non-retrieved posterior words have ceased to exist in the aforementioned original text, thus, computing the total value of the third evaluated value by the natural sentence.

[0027] The invention as ~~defined~~ embodied in claim 7 the seventh embodiment is equipped with the same memorizing means and the search unit as ~~defined~~ embodied in claims 1 and 2 the first and second embodiments, with the parallel translation identifying system, searching, to the natural sentence extracted by the search unit, from among the anterior word groups aligned toward the front side from the object phrases to be rendered in the original text, whether the specific anterior words non-retrieved and with minimum distance from the

object phrases to be rendered are located toward the front of the object phrases to be rendered in the natural sentence or the anterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific anterior words upon detection and the object phrases to be rendered or the anterior words extracted in the preceding search until the non-retrieved anterior words have ceased to exist in the aforementioned original text, and concomitantly searching, to the natural sentence extracted by the search unit, from among the posterior word groups aligned toward the back from the object phrases to be rendered in the original text, whether the specific posterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the back of the object phrases to be rendered in the natural sentence or the posterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific posterior words upon detection and the object phrases to be rendered or the posterior words extracted in the preceding search until the non-retrieved posterior words have ceased to exist in the aforementioned original text, thus, computing the total value of the third evaluated value by the natural sentence. Since the object phrases to be rendered in the object sentence of the natural sentence are at least identified based on the total value of the third evaluated value as the object phrases to be rendered in the original text at least, the similarity in the word alignment sequence is quite high compared to the original text on the basis of the total value of the third evaluated value, and concomitantly, a natural sentence with the least number of discordant words, i.e., the natural sentence with the original text excluding discordant words as much as possible (status of tighter group of words) can thus be chosen and created with a higher possibility of obtaining a natural parallel version with more appropriate phrases as a sentence of the target language rendered from the original text in the source language.

[0028] The parallel translation identifying system related to the invention as ~~defined~~ embodied in claim 8 en eighth embodiment consists of the following means and unit: the memorizing means storing multiple sentences in the source language composed of multiple words coordinating the rendered parallel sentences of the target language; the search unit retrieving the natural sentence containing the target phrases to be rendered in the original text of the source language from the multiple natural sentences in the source language stored in the above memory; and the parallel translation identifying system recognizing at least the parallel version of the object phrases to be rendered in the parallel natural sentence selected based on the total value computed from the number of words by the first distance regarding the front side and from the number of words by the first distance regarding the back side as at least the parallel version for the object phrases to be rendered in the original text, searching, regarding the natural sentence extracted through the process by the search unit, to see whether the specific anterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the front side of the object phrases to be rendered in the natural sentence or of the anterior words extracted in the preceding search process within the prescribed number of words from among the first anterior group of words located on the front side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the front side corresponding to the distance from the object phrases to be rendered when the specific anterior words are detected or the from anterior words extracted in the preceding retrieval process till the non-retrieved anterior words have ceased to exist in the first anterior group of words, and concomitantly, searching to see whether the specific posterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the back side of the object phrases to be rendered in the natural sentence or of the posterior words extracted in the preceding search process within the prescribed number of words from among the first

posterior group of words located on the back side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the back side corresponding to the distance from the object phrases to be rendered when the specific posterior words are detected or the from posterior words extracted in the preceding retrieval process till the non-retrieved posterior words have ceased to exist in the first posterior group of words.

[0029] The invention as ~~defined~~ embodied in claim 8 the eighth embodiment is equipped with the same memorizing means and the search unit as ~~defined in claims 1 and 2~~ the first and second embodiments, with the parallel translation identifying system recognizing at least the parallel version of the object phrases to be rendered in the parallel natural sentence selected based on the total value computed from the number of words by the first distance regarding the front side and from the number of words by the first distance regarding the back side as at least the parallel version for the object phrases to be rendered in the original text, searching, regarding the natural sentence extracted through the process by the search unit, to see whether the specific anterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the front side of the object phrases to be rendered in the natural sentence or of the anterior words extracted in the preceding search process within the prescribed number of words from among the first anterior group of words located on the front side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the front side corresponding to the distance from the object phrases to be rendered when the specific anterior words are detected or the from anterior words extracted in the preceding retrieval process till the non-retrieved anterior words have ceased to exist in the first anterior group of words, and concomitantly, searching to see whether the specific posterior words non-retrieved and with minimal distance from the object phrases to be

rendered are aligned on the back side of the object phrases to be rendered in the natural sentence or of the posterior words extracted in the preceding search process within the prescribed number of words from among the first posterior group of words located on the back side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the back side corresponding to the distance from the object phrases to be rendered when the specific posterior words are detected or the from posterior words extracted in the preceding retrieval process till the non-retrieved posterior words have ceased to exist in the first posterior group of words. Thus, the similarity in the word alignment sequence is quite high compared to the original text on the basis of the total value computed from the number of words by the first distance regarding the front side and from the number of words by the first distance regarding the back side, and concomitantly, a natural sentence with the least number of discordant words, i.e., the natural sentence with the original text excluding discordant words as much as possible (status of tighter group of words) can be chosen and created with a higher possibility of obtaining a natural parallel version with more appropriate phrases as a sentence of the target language rendered from the original text in the source language.

[0030] Moreover, the parallel translation identifying system in the invention as ~~defined embodied in claim 8~~ the eighth embodiment as in ~~[[9]]~~ a ninth embodiment, for example, is located on the front compared to the object phrases to be rendered in the original text toward the natural sentence extracted by the search unit, exploring whether the specific front words non-retrieved and with minimal distance from the object phrases to be rendered among the second anterior group of words excluding the anterior words adjacent to the object phrases to be rendered are aligned on the front of the object phrases to be rendered in the natural sentence or anterior group of words extracted in the preceding search and within the prescribed number of words, repeatedly counting up 1 to the distance between the specific

front words when discovered and the object phrases to be rendered or the front words extracted in the preceding search or adding the number of words by the second interval in relation to the corresponding front side to the distance added to the interval computed regarding the front-side words discovered in the preceding search until the non-retrieved front words have ceased to exist in the original text, concomitantly selecting as the final recognition the result of a shorter distance between the respective words from among the number of words by the first and second intervals regarding the front side respectively, and also, toward the natural sentence extracted by the search unit, exploring whether the specific back-side words non-retrieved and with minimal distance from the object phrases to be rendered among the second posterior group of words excluding the posterior words adjacent to the object phrases to be rendered are aligned on the back of the object phrases to be rendered in the natural sentence or posterior group of words extracted in the preceding search and within the prescribed number of words, repeatedly counting up 1 to the distance between the specific back-side words when discovered and the object phrases to be rendered or the back-side words extracted in the preceding search or adding the number of words by the second interval in relation to the corresponding back side to the distance added to the interval computed regarding the back-side words discovered in the preceding search until the non-retrieved back-side words have ceased to exist in the original text, concomitantly selecting as the final recognition the result of a shorter distance between the respective words from among the number of words by the first and second intervals regarding the back side respectively, performing a comprehensive evaluation by adding up the final recognition on the anterior and posterior sides, thus, preferably configuring and identifying at least the parallel version of the object phrases to be rendered in the parallel sentence of the natural sentence of the result with shorter intra-word distance in the computed integrated recognition as the parallel translation at least of the target phrases to be rendered in the original text.



As shown in the above, by using the number of words by the second distance in combination with those by the first distance, the degree of similarity in the alignment sequence of the words compared to the original text can be justly evaluated by the number of words by the second distance also regarding the natural sentence the sequence of the part of which the words have been changed toward the original text, thus, improving the probability of obtaining more a appropriate parallel version of the object phrases to be rendered in the original text.

[0031] The translation identifying method relating to the invention according to ~~Claim~~ 10 a tenth embodiment comprises a first step for retrieving natural sentences containing phrases to be translated in the original sentence in the source language from natural sentences in the source language composed of a plurality of words stored in the storage means by correlating the natural sentences with the translations of the target language, a second step for searching the natural sentences extracted by the retrieval of the retrieval means in the aforementioned first step for the aforementioned phrases to be translated and the frequently appearing phrases that frequently appear in the same sentences of the source language, and a third step for searching for the aforementioned phrases to be translated and the frequently appearing translations for the phrases to be translated in the corresponding translation sentences of the natural sentences containing each of the aforementioned specific frequently appearing phrases and identifying the found frequently appearing translations as the translations of the aforementioned phrases to be translated in the original sentence by referring to the specific frequently appearing phrases found in the aforementioned second step and existing in the aforementioned original sentence among the natural sentences extracted by the retrieval in the aforementioned first step and referring to the corresponding translation sentences of the aforementioned natural sentences each of which contains the aforementioned phrases to be translated. Therefore in the same manner as the invention

according to ~~Claim 1~~ the first embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0032] The translation identifying method relating to the invention according to ~~Claim 11~~ an eleventh embodiment comprises a first step for retrieving natural sentences containing phrases to be translated in the original sentence in the source language from natural sentences in the source language composed of a plurality of words stored in the storage means by correlating the natural sentences with the translations of the target language, a second step for identifying alternative phrases existing in said original sentences and replaceable with targeted phrases not contained in natural sentences extracted by retrieval of said first step, and a third step for identifying translations of at least said phrase to be translated in translated sentences of natural sentences containing each of alternative phrases identified by said second step and said phrase to be translated among natural sentences extracted by retrieval of said first step, as translations of at least said phrase to be translated in said original sentences. Thus, in the same manner as the invention according to ~~Claim 2~~ the second embodiment, suitable translations of phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0033] The parallel translation identifying system related to the invention as defined in ~~claim 12~~ a twelfth embodiment consists of two steps: the first step to search the natural sentence composed of object phrases to be rendered in the original text in a source language from out of the natural sentences in a source language composed of multiple words respectively stored in multiples in memory in response to the parallel version of the target language; and the second step to identify the parallel version of the object phrases to be

rendered at least in the parallel sentence of the natural sentence selected based on the total value of the first evaluated value computed at least as the parallel version of the object phrases to be rendered in the original text, respectively granting the first evaluated value corresponding to the small distance in the original text from the object phrases to be rendered in the original text toward the respective words in the original text, recognizing the words concordant with the original text from among the respective words in the relevant natural sentence in relation to the natural sentence extracted by the search process in the first step, thus, computing by the natural sentence the total value of the first evaluated value granted to the corresponding words identified. Therefore, in the same way as the invention as defined in ~~claim 5~~ a fifth embodiment, an appropriate parallel translation can be obtained for the object phrases to be rendered in the original text (i.e., parallel version with a higher possibility of acquiring a natural sentence as a sentence in the target language from the original text).

[0034] The parallel translation identifying system related to the invention as defined in ~~claim 13~~ a thirteenth embodiment consists of two steps: the first step to search the natural sentence composed of object phrases to be rendered in the original text in a source language from out of the natural sentences in a source language composed of multiple words respectively stored in multiples in memory in response to the parallel version of the target language; and the second step to recognize the rendition of the said minimal parallel phrases in the parallel natural sentences selected based on the total value of the third evaluated value computed as the parallel translation of the minimal parallel phrases in the original text in question, searching, to the natural sentence extracted by the search process in the first step, from among the anterior word groups aligned toward the front side from the object phrases to be rendered in the original text, whether the specific anterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the front of the object phrases to be rendered in the natural sentence or the anterior words extracted in the

preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific anterior words upon detection and the object phrases to be rendered or the anterior words extracted in the preceding search until the non-retrieved anterior words have ceased to exist in the aforementioned original text, and concomitantly searching, to the natural sentence extracted by the search process in the first step, from among the posterior word groups aligned toward the back from the object phrases to be rendered in the original text, whether the specific posterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the back of the object phrases to be rendered in the natural sentence or the posterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific posterior words upon detection and the object phrases to be rendered or the posterior words extracted in the preceding search until the non-retrieved posterior words have ceased to exist in the aforementioned original text, thus, computing the total value of the third evaluated value by the natural sentence. Therefore, in the same way as the invention as defined in claim 7, an appropriate parallel translation can be obtained for the object phrases to be rendered in the original text (i.e., parallel version with a higher possibility of acquiring a natural sentence as a sentence in the target language from the original text).

[0035] The parallel translation identifying system related to the invention as defined in ~~claim 14~~ a fourteenth embodiment consists of two steps: the first step to search the natural sentence composed of object phrases to be rendered in the original text in a source language from out of the natural sentences in a source language composed of multiple words respectively stored in multiples in memory in response to the parallel version of the target language; and the second step to recognize at least the parallel version of the object phrases to

be rendered in the parallel natural sentence selected based on the total value computed from the number of words by the first distance regarding the front side and from the number of words by the first distance regarding the back side as at least the parallel version for the object phrases in the original text, searching, regarding the natural sentence extracted by the search process in the first step, to see whether the specific anterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the front side of the object phrases to be rendered in the natural sentence or of the anterior words extracted in the preceding search process within the prescribed number of words from among the first anterior group of words located on the front side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the front side concordant with the interval from the object phrases to be rendered upon detection of the specific anterior words and from the anterior words extracted in the preceding search process till the non-retrieved anterior words have ceased to exist in the first anterior group of words, and concomitantly, searching, regarding the natural sentence extracted through the process by the search process in the first step, to see whether the specific posterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the back side of the object phrases to be rendered in the natural sentence or of the posterior words extracted in the preceding search process within the prescribed number of words from among the first posterior group of words located on the back side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the back side concordant with the interval from the object phrases to be rendered upon detection of the specific posterior words and from the posterior words extracted in the preceding search process till the non-retrieved posterior words have ceased to exist in the first posterior group of words. Therefore, in the same way as the invention as defined in claim 8, an appropriate parallel

translation can be obtained for the object phrases to be rendered in the original text (i.e., parallel version with a higher possibility of acquiring a natural sentence as a sentence in the target language from the original text).

[0036] The program relating to the invention according to ~~Claim 15~~ a fifteenth embodiment allows a computer connected to a storage means for storing a plurality of natural sentences in the source language composed of a plurality of words having corresponding translations in the target language to function as a retrieval means for retrieving the natural sentences containing the phrases to be translated in the original sentence in the source language from a plurality of natural sentences in the source language stored in the aforementioned storage means, a search means for searching the natural sentences extracted by the retrieval by the aforementioned retrieval means for the aforementioned phrases to be translated and the frequently appearing phrases that frequently appear in the same sentences of the source language, and a second translation identifying means for searching for the aforementioned phrases to be translated and the frequently appearing translations for the phrases to be translated in the corresponding translation sentences of the natural sentences each of which contains the aforementioned specific frequently appearing phrases and for identifying the found frequently appearing translations as the translations of the aforementioned phrases to be translated in the aforementioned original sentence by referring to the specific frequently appearing phrases found by the aforementioned search means and existing in the aforementioned original sentence among the natural sentences extracted by the retrieval by the aforementioned retrieval means and referring to the corresponding translation sentences of the natural sentences each of which contains the aforementioned phrases to be translated.

The program relating to the invention according to ~~Claim 15~~ the fifteenth embodiment is a program for allowing a computer connected to a storage means for storing a plurality of

natural sentences in the source language composed of a plurality of words having corresponding translations in the target language (either a computer in which a storage means is built or a computer connected to another computer connected to a storage means through telecommunication line) to function as the abovementioned retrieval means, search means, and translation identifying means. Therefore, when the abovementioned computer runs the program relating to the invention according to ~~Claim 15~~ the fifteenth embodiment, the abovementioned computer functions as the translation identifying means according to ~~Claim 1~~ the first embodiment. Therefore in the same manner as the invention according to ~~Claim 1~~ the first embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0036] The program relating to the invention according to ~~Claim 16~~ the sixteenth embodiment allows a computer connected to a storage means for storing a plurality of natural sentences in the source language composed of a plurality of words having corresponding translations in the target language to function as a retrieval means for retrieving natural sentences containing phrase to be translated in original sentences in a source language from a plurality of natural sentences in said source language stored in said storage means, an identifying means for identifying alternative phrases existing in said original sentences and replaceable with targeted phrases not contained in natural sentences extracted by retrieval of said retrieval means, and a translation identifying means for identifying translations of at least said phrase to be translated in translated sentences of natural sentences containing each of alternative phrases identified by said identifying means and said phrase to be translated among natural sentences extracted by retrieval of said retrieval means, as translations of at least said phrase to be translated in said original sentences.

The program relating to the invention according to ~~Claim 16~~ the sixteenth embodiment is a program for allowing a computer connected to the abovementioned storage means to function as the abovementioned retrieval means, search means, and translation identifying means. Therefore, when the abovementioned computer runs the program relating to the invention according to ~~Claim 16~~ the sixteenth embodiment, the computer functions as the translation identifying means according to ~~Claim 2~~ the second embodiment. Therefore, in the same manner as the invention according to ~~Claim 2~~ the second embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0037] The program relating to the invention according to ~~Claim 17~~ the seventeenth embodiment allows a computer connected to a storage means for storing a plurality of natural sentences in the source language composed of a plurality of words having corresponding translations in the target language to function as a retrieval means for retrieving natural sentences containing phrase to be translated in original sentences in a source language from a plurality of natural sentences in said source language stored in said storage means, and a parallel translation identifying system for processing the minimal translation target phrase in the natural parallel version selected based on the total value of the first evaluated value computed as the minimal object phrase in the original text by respectively adding the first evaluated value corresponding to the small distance between the phrase to be rendered and the respective words in the original text, identifying the words matching the original from among the respective words in the natural sentence in question about the natural one extracted through the retrieval tool, and by computing by the natural sentence for which the total value of the said first evaluated value added to the corresponding words were recognized.



The program relating to the invention according to ~~Claim 17~~ the seventeenth embodiment is a program for allowing a computer connected to the abovementioned storage means to function as the abovementioned retrieval means and translation identifying means. Therefore, when the abovementioned computer runs the program relating to the invention according to ~~Claim 17~~ the seventeenth embodiment, the computer functions as the translation identifying means according to ~~Claim 5~~ the fifth embodiment. Therefore, in the same manner as the invention according to ~~Claim 5~~ the fifth embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0038] The program relating to the invention according to ~~Claim 18~~ the eighteenth embodiment allows the parallel translation identifying methodology to function recognizing at least the parallel version of the object phrases to be rendered in the parallel natural sentence selected based on the computed total value of the third evaluated value as at least the parallel version for the object phrases to be rendered in the original text, making the methodology work together with other functions: the memorizing means storing multiple natural sentences composed of multiple words in source language by matching the parallel sentences in a target language and the search unit, by means of the connected computer, retrieving a natural sentence containing the object phrases to be rendered in the original text in a source language from among multiple natural sentences in a source language stored in the memory, searching, regarding the natural sentence extracted through the process by the search unit, to see whether the specific anterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the front side of the object phrases to be rendered in the natural sentence or of the anterior words extracted in the preceding search process within the prescribed number of words from among the anterior

group of words located on the front side from the object phrases to be rendered in the original text, repeating the process of granting the third evaluated value concordant with the small interval between the detected specific anterior words if detected and the object phrases to be rendered or the anterior words extracted in the preceding retrieval process till the non-retrieved anterior words have ceased to exist in the original text, and concomitantly, searching to see whether the specific posterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the back side of the object phrases to be rendered in the natural sentence or of the posterior words extracted in the preceding search process within the prescribed number of words from among the posterior group of words located on the back side from the object phrases to be rendered in the original text, repeating the process of granting the third evaluated value concordant with the small interval between the detected specific posterior words if detected and the object phrases to be rendered or the posterior words extracted in the preceding retrieval process till the non-retrieved posterior words have ceased to exist in the original text.

The program relating to the invention according to ~~Claim 18~~ the eighteenth embodiment is a program for allowing a computer connected to the abovementioned storage means to function as the abovementioned retrieval means and translation identifying means. Therefore, when the abovementioned computer runs the program relating to the invention according to ~~Claim 18~~ the eighteenth embodiment, the computer functions as the translation identifying means according to ~~Claim 7~~ the seventh embodiment. Therefore, in the same manner as the invention according to ~~Claim 7~~ the seventh embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

[0039] The program relating to the invention according to ~~Claim 19~~ a nineteenth embodiment allows the parallel translation identifying methodology to function recognizing at least the parallel version of the object phrases to be rendered in the parallel natural sentence selected based on the number of words by the first distance regarding the front side and from the number of words by the first distance regarding the back side as at least the parallel version for the object phrases to be rendered in the original text, making the methodology work together with other functions: the memorizing means storing multiple natural sentences composed of multiple words in a source language by matching the parallel sentences in a target language and the search unit, by means of the connected computer, retrieving a natural sentence containing the object phrases to be rendered in the original text in a source language from among multiple natural sentences in a source language stored in the memory, searching, regarding the natural sentence extracted through the process by the search unit, to see whether the specific anterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the front side of the object phrases to be rendered in the natural sentence or of the anterior words extracted in the preceding search process within the prescribed number of words from among the first anterior group of words located on the front side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the front side corresponding to the distance from the object phrases to be rendered when the specific anterior words are detected or the from anterior words extracted in the preceding retrieval process till the non-retrieved anterior words have ceased to exist in the first anterior group of words, and concomitantly, searching to see whether the specific posterior words non-retrieved and with minimal distance from the object phrases to be rendered are aligned on the back side of the object phrases to be rendered in the natural sentence or of the posterior words extracted in the preceding search process within the

prescribed number of words from among the first posterior group of words located on the back side from the object phrases to be rendered in the original text, repeating the process of counting up the number of words by the first distance regarding the back side corresponding to the distance from the object phrases to be rendered when the specific posterior words are detected or the from posterior words extracted in the preceding retrieval process till the non-retrieved posterior words have ceased to exist in the first posterior group of words.

The program relating to the invention according to ~~Claim 19~~ the nineteenth embodiment is a program for allowing a computer connected to the abovementioned storage means to function as the abovementioned retrieval means and translation identifying means. Therefore, when the abovementioned computer runs the program relating to the invention according to ~~Claim 19~~ the nineteenth embodiment, the computer functions as the translation identifying means according to ~~Claim 8~~ the eighth embodiment. Therefore, in the same manner as the invention according to ~~Claim 8~~ the eighth embodiment, the suitable translations of the phrases to be translated in the original sentence (the translation having high probability of obtaining from the original sentence a natural translation as a sentence in the target language) can be obtained.

#### Effect of Invention

[0040] As described above, this invention retrieves natural sentences containing phrases to be translated in the original sentence in the source language from natural sentences in the source language composed of a plurality of words stored in the storage means by correlating the natural sentences with the translations of the target language, searches the natural sentences extracted by the retrieval for the phrases to be translated and the frequently appearing phrases that frequently appear in the same sentences of the source language, searches translated sentences of natural sentences containing each of the phrase to be translated and specific frequently appearing phrases for frequently appearing translations of

phrase to be translated by referring to the specific frequently appearing phrases found by the search means and existing in the original sentences and referring to translated sentences of natural sentences containing each of the phrase to be translated and identifies found frequently appearing translations as translations of the phrases to be translated in the original sentences. Therefore, this invention has an excellent effect wherein the suitable translations of the phrases to be translated in the original sentence can be obtained.

[0041] Moreover this invention retrieves natural sentences containing phrases to be translated in the original sentence in the source language from natural sentences in the source language composed of a plurality of words stored in the storage means by correlating the natural sentences with the translations of the target language, identifies alternative phrases existing in original sentences and replaceable with targeted phrases not contained in natural sentences extracted by retrieval of said retrieval means, and identifies translations of at least a phrase to be translated in translated sentences of natural sentences containing each of alternative phrase identified by said identifying means and phrase to be translated among natural sentences extracted by retrieval of said retrieval means, as translations of at least a phrase to be translated in original sentences. Therefore, this invention has an excellent effect wherein the suitable translations of the phrases to be translated in the original sentence can be obtained.

[0042] Furthermore, this invention has an excellent advantageous effect capable of obtaining the most appropriate parallel version of the object phrases to be rendered in the original text since the parallel translation of the object phrases to be rendered at least in the parallel version of the natural sentence selected based on the total value of the first evaluated value computed is identified as at least the parallel version of the object phrases to be rendered in the original text, searching the natural sentence containing the object phrases to be rendered in the original text in a source language from out of the natural sentences in a

source language respectively composed of multiple words stored in multiples in memory in response to the parallel sentence in a target language, respectively granting the first evaluated value according to the small interval in the original text between the object phrases to be rendered in the original text for the respective words in the original text, identifying the concordant words with the original text from among the respective words of the natural sentence in question regarding the natural sentence extracted by the search process, thus, computing by the natural sentence the total value of the first evaluated value granted to the corresponding words identified.

[0043] Additionally, this invention has an excellent advantageous effect capable of obtaining the most appropriate parallel version of the object phrases to be rendered in the original text since the parallel translation of the object phrases to be rendered at least in the parallel version of the natural sentence selected based on the total value of the third evaluated value computed is identified as at least the parallel version of the object phrases to be rendered in the original text, searching the natural sentence containing the object phrases to be rendered in the original text in a source language from out of the natural sentences in a source language respectively composed of multiple words stored in multiples in memory in response to the parallel sentence in a target language, searching, to the natural sentence extracted by the search process, from among the anterior word groups aligned toward the front side from the object phrases to be rendered in the original text, whether the specific anterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the front of the object phrases to be rendered in the natural sentence or the anterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific anterior words upon detection and the object phrases to be rendered or the anterior words extracted in the preceding search until the non-retrieved anterior words

have ceased to exist in the aforementioned original text, and concomitantly searching, to the natural sentence extracted by the search process, from among the posterior word groups aligned toward the back from the object phrases to be rendered in the original text, whether the specific posterior words non-retrieved and with minimum distance from the object phrases to be rendered are located toward the back of the object phrases to be rendered in the natural sentence or the posterior words extracted in the preceding search within the prescribed number of words, repeatedly assigning the third evaluated value according to the minimal distance between the specific posterior words upon detection and the object phrases to be rendered or the posterior words extracted in the preceding search until the non-retrieved posterior words have ceased to exist in the aforementioned original text, thus, computing the total value of the third evaluated value by the natural sentence.

[0044] Additionally, this invention has an excellent advantageous effect capable of obtaining the most appropriate parallel version of the object phrases to be rendered in the original text since the parallel translation of the object phrases to be rendered at least in the parallel version of the natural sentence selected based on the integrated recognition computed from the number of words by the first distance regarding the front side and the number of words by the first distance regarding the back side is identified as at least the parallel version of the object phrases to be rendered in the original text, searching the natural sentence containing the object phrases to be rendered in the original text in a source language from out of the natural sentences in a source language respectively composed of multiple words stored in multiples in memory in response to the parallel sentence in a target language, exploring whether the specific front words non-retrieved and with minimal distance from the object phrases to be rendered among the first anterior group of words existing to the front to the object phrases to be rendered in the original text for the natural sentence extracted in the search in question are located on the front of the object phrases to be rendered in the natural

sentence or anterior group of words extracted in the preceding search and within the prescribed number of words, repeatedly counting up the number of words by the first distance regarding the front side corresponding to the interval from the object phrases to be rendered or from the front words extracted in the preceding search when specific anterior words have been detected until the non-retrieved front words have ceased to exist in the first anterior group of words, and concomitantly, exploring whether the specific back words non-retrieved and with minimal distance from the object phrases to be rendered among the first posterior group of words existing to the back to the object phrases to be rendered in the original text for the natural sentence extracted in the search in question are located on the back of the object phrases to be rendered in the natural sentence or posterior group of words extracted in the preceding search and within the prescribed number of words, repeatedly counting up the number of words by the first distance regarding the back side corresponding to the interval from the object phrases to be rendered or from the back words extracted in the preceding search when specific posterior words have been detected until the non-retrieved back words have ceased to exist in the first posterior group of words.

Page 18, paragraph [0048] has been changed as follows:

A translation-identifying program (corresponding to programs ~~described~~ utilized in ~~Claims 18 and 19~~) the fifteenth and sixteenth embodiments for allowing PC 10 to function as an electronic dictionary system is installed in HDD 18 of PC 10. A corresponding translation database (corresponding translation database) storing data that the aforementioned translation-identifying program uses for identifying a suitable translation is stored in this HDD 18.



The paragraph beginning on page 20, line 6 has been changed as follows:

This translation identifying ~~processing is processing to which the translation~~  
~~identifying method described in Claims 16 and 17 is applied. By performing this processing~~  
process is the process for which the parallel translation methodology as embodied in the tenth  
and eleventh embodiments was applied through the implementation of which process, PC 10  
functions as an electronic dictionary system (the translation-identifying system ~~described~~  
embodied in Claims 1 and 14 the first and fourteenth embodiments).

The paragraph beginning on page 20, line 30 has been changed as follows:

Step 102 corresponds to the retrieval means ~~described in Claims 1 (more specifically~~  
~~Claims 2 and 15), 14, 18, and 19 and corresponds to the first Step described in Claims 16 and~~  
17 of the first, second, fifteenth, and sixteenth embodiments and also correspond to the first  
step of the tenth and eleventh embodiments.

Step 104 ~~and the subsequent Steps correspond to the first translation identifying~~  
~~means described in Claims 1 and 18~~ through Step 112 corresponds to the first translation  
identifying means of the fourth embodiment.

The paragraph beginning on page 23, line 4 has been deleted.

The paragraph beginning on page 23, line 20 has been deleted.

The paragraph beginning on page 23, line 28 has been deleted.

The paragraph beginning on page 24, line 3 has been deleted.

Paragraph [0069], page 28 has been changed as follows:

[0069] When a plurality of natural sentences having the maximum degree of coincidence exists, the answer to the question in Step 110 is positive. Then the program moves to Step 114 to perform a correlation analysis for selecting a natural sentence based on the phrases to be translated and the words that appear frequently in the same sentences of the source language (words having a high correlation with the phrase to be translated: corresponding to the frequently appearing phrases ~~described in Claims 11, 14, 17 and 19 of the first, tenth, and fifteenth embodiments~~) in Steps 114 and 116.

The paragraph beginning on page 28, line 18 has been changed as follows:

The abovementioned Step 114 corresponds to the search means described in ~~Claims 11, 14 and 19~~ the first and fifteenth embodiments and corresponds to the second Step ~~described in Claim 17~~ the tenth embodiment.

The paragraph beginning on page 29, line 24 has been changed as follows:

The abovementioned Steps 116 through 119 correspond to the first translation identifying means ~~described in Claim 11~~ of the first and fifteenth embodiment, ~~the second translation identifying means described in Claims 14 and 19,~~ and the third Step ~~described in Claim 17~~ of the tenth embodiment, respectively.

Paragraph [0079], page 31 has been changed as follows:

[0079] Meanwhile, in case words with higher correlation with the object phrase to be rendered have not been extracted, the determination in Step 116 is negated, moving to Step 120 and further to 120 and 134 during the interval of which steps a scheme analysis is implemented selecting natural sentences based on the alternative words, i.e., equivalent to the

alternative phrases ~~as defined in claim 12~~ of the second, third, eleventh, and sixteenth embodiment, that can replace with focus words other than the target phrases to be rendered in the original text to be processed.

The paragraph beginning on page 32, line 9 has been changed as follows:

In Step 124, a retrieval condition for retrieving each of the natural sentences ("natural sentence having the same sentence structure as the natural sentence extracted by the retrieval of natural sentences containing the targeted phase" ~~described in Claim 13~~ of the third embodiment) only of which targeted word in each natural sentence extracted by the retrieval in Step 122 differs is defined to retrieve the natural sentence from the natural sentences registered in the corresponding translation database based on the defined retrieval condition.

The paragraph beginning on page 32, line 24 has been changed as follows:

The abovementioned Steps 120 through 130 correspond to the identifying means ~~described tool in Claim 12 of the second embodiment (more specifically in see Claim 13 the thirteenth embodiment for details), the identifying tool of the sixteenth embodiment, and the second step described in the eleventh embodiment.~~

The paragraph beginning on page 33, line 14 has been changed as follows:

The abovementioned Steps 130 and 132 correspond to the first translation identifying means ~~described tool in Claim 12 of the second and sixteenth embodiment, and the third step of the eleventh embodiment.~~

The paragraph beginning on page 38, line 10 has been deleted.

The paragraph beginning on page 38, line 25 has been deleted.

Paragraph [0095], page 40 has been changed as follows:

[0095] The first assessment value is defined so that the values increases as the difference between the phrase to be translated in the original sentence and each word other than the phrase to be translated in the original sentence decreases. Therefore by evaluating each natural sentence containing the phrase to be translated based on the sum of the first assessment value as mentioned above, the natural sentence containing many words existing in the position close to the phrase to be translated in the original sentence, in other words, the natural sentence having high probability of containing many phrases composed of the phrase to be translated in the original sentence and the words located close to the phrase to be translated (the natural sentence of which similarity of arranged order of words with the original sentence is estimated to be high) can be ~~evaluated~~ implemented as the natural sentence having higher degree of coincidence. This mode corresponds to the invention of the fifth, twelfth, and sixteenth embodiments.

The paragraph beginning on page 40, line 27 has been changed as follows:

This second assessment value can ~~also be~~ also be defined so that the second assessment value for the phrase to be translated contained in each natural sentence is the largest and the value decreases as the difference from the phrase to be translated in each natural sentence increases (as the number of words existing in-between increases).

Paragraph [0098], page 41 has been changed as follows:

[0098] The second assessment value is defined so that the value increases as the difference between the coinciding word coinciding with any word in the original sentence among the words in each natural sentence and the phrase to be translated in each natural sentence decreases. Therefore the natural sentence containing a larger number of the words coinciding with the original sentence and containing the mismatched words existing between the coinciding words as small as possible, namely the natural sentence having a high probability that the natural sentence contains the phrase to be translated in the original sentence and the phrases composed of the words close to the phrase to be translated, can be ~~evaluated~~ implemented as the natural sentence having higher degree of coincidence by evaluating each natural sentence containing the phrase to be translated based on the sum of the second assessment values. Incidentally, the above aspect is also compatible with the invention of the fifth (see the sixth embodiment for details), twelfth, and seventeenth embodiments.

The paragraph beginning on page 45, line 4 has been changed as follows:

By providing each natural sentence containing the phrase to be translated with the third assessment value as shown above and evaluating based on the sum of the third assessment value, the natural sentence having high similarity of arranging order of word with the original sentence and having the number of mismatched words as small as possible existing between the words coinciding with the original sentence, that is to say, the natural sentence containing the original sentence in the condition that the natural sentence contains the mismatched words as small as possible (in the condition of high integrity) can be ~~evaluated~~ implemented as the natural sentence having a higher degree of coincidence. This mode corresponds to the invention of the seventh, thirteenth, and eighteenth embodiments:

The paragraph beginning on page 51, line 3 has been changed as follows:

In the abovementioned processing, the counting of the second number of words by distance is not essential. When it is not necessary to evaluate the natural sentence for which words are partially rearranged from the original sentence, it is acceptable to omit the counting of the second number of words by distance and use the first number of words by distance as the final evaluation. Incidentally, the above aspect corresponds to the inventions of the eighth, fourteenth, and nineteenth embodiments, and especially, the aspect using the number of words by the first distance in combination with the second accommodates the invention of the ninth embodiment.